

CLAIMS*Sub 1*

1. System for sealing an opening of a plastic tank with a multilayer structure, constituted by a plastic plate (1) welded to the wall of the tank (4) in the location of the periphery of the opening, also characterized in that the plate (1) itself is constituted by a multilayer structure whose external layer welded to the tank has a composition compatible with that of the layer constituting the external wall of the tank.
2. System according to the preceding claim, also characterized in that the tank (4) and the plate (1) comprise identical means for making them impermeable to liquids and gasses and are constituted by the same multilayer structure.
3. System according to either of the preceding claims, also characterized in that the plate (1) is attached to at least one accessory (2) located on the side inside the tank.
4. System according to the preceding claim, also characterized in that the accessory (2) is a liquid-vapor separator comprising a vapor escape conduit that passes through the plate via a hole.
5. System according to any of claims 1 through 3, also characterized in that the plate (1) is constituted by a multilayer structure comprising two complete structures identical to that of the walls of the tank (4), stacked on top of each other and resulting from the compression of two structures identical to the walls of the tank.
6. System according to any of the preceding claims, also characterized in that the wall of the tank (4) carries mounting pins in the vicinity of the opening.
7. Method for sealing an opening of a plastic tank (4) with a multilayer structure by means of a plastic plate (1), according to which the plate (1) is welded to the external layer of the tank (4) in the location of the periphery of the opening, also characterized in that a welded plate (1) has a multilayer structure whose layer welded to the tank has a composition compatible with the composition of the external layer of the tank (4).

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ai 8. Method according to the preceding claim, also characterized in that at least one accessory (2) is attached by welding to the plate (1), on the side inside the tank (4).

5 9. Method according to claim 8, also characterized in that at least one accessory (2) is welded to the plate (1) prior to performing the sealing of the opening of the tank (4) by welding the plate (1) carrying the accessory (2) to the periphery of this opening.

10 10. Method according to claim 8, also characterized in that at least one accessory (2) is attached to the internal wall of the tank (4) adjacent to the opening prior to sealing the tank (4) by simultaneously welding the plate (1) to the accessory (2) and to the periphery of the opening.

11. Method according to any of claims 7 through 10, also characterized in that the wall of the tank (4) is supported in the vicinity of the opening during the operation for welding the plate (1) by means of pins molded onto this wall.

15 12. Utilization of the method according to any of claims 7 through 11 to seal an opening of a fuel tank (4) for a motor vehicle.

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CLAIMS

1. System for sealing an opening of a plastic tank with a multilayer structure, constituted by a plastic plate (1) welded to the wall of the tank (4) in the location of the periphery of the opening, also characterized in that the plate (1) itself is
5 constituted by a multilayer structure whose external layer welded to the tank has a composition compatible with that of the layer constituting the external wall of the tank.

2. System according to the preceding claim, also characterized in that the tank (4) and the plate (1) comprise identical means for making them impermeable to
10 liquids and gasses and are constituted by the same multilayer structure.

3. System according to either of the preceding claims, also characterized in that the plate (1) is attached to at least one accessory (2) located on the side inside the tank.

4. System according to the preceding claim, also characterized in that the
15 accessory (2) is a liquid-vapor separator comprising a vapor escape conduit that passes through the plate via a hole.

5. System according to any of claims 1 through 3, also characterized in that the plate (1) is constituted by a multilayer structure comprising two complete structures identical to that of the walls of the tank (4), stacked on top of each other
20 and resulting from the compression of two structures identical to the walls of the tank.

6. System according to any of the preceding claims, also characterized in that the wall of the tank (4) carries mounting pins in the vicinity of the opening.

7. Method for sealing an opening of a plastic tank (4) with a multilayer
25 structure by means of a plastic plate (1), according to which the plate (1) is welded

to the external layer of the tank (4) in the location of the periphery of the opening, also characterized in that the welded plate (1) has a multilayer structure wherein the layer welded to the tank has a composition that is compatible with the composition of the external layer of the tank (4).

5 8. Method according to the preceding claim, also characterized in that an accessory (2) is attached by welding to the plate (1), on the side inside the tank (4).

9. Method according to claim 8, also characterized in that at least one accessory (2) is welded to the plate (1) prior to sealing the opening of the tank (4) by welding the plate (1) carrying the accessory (2) to the periphery of this opening.

10 10. Method according to claim 8, also characterized in that at least one accessory (2) is attached to the internal wall of the tank (4) adjacent to the opening prior to sealing the tank (4) by simultaneously welding the plate (1) to the accessory (2) and to the periphery of the opening.

15 11. Method according to any of claims 7 through 10, also characterized in that the wall of the tank (4) is supported in the vicinity of the opening during the operation for welding the plate (1) by means of pins molded onto this wall.

12. Utilization of the method according to any of claims 7 through 11 to seal an opening of a fuel tank (4) for a motor vehicle.